and cosmetics, general analytical methodology as well as specific methodology for such poisons as cholinesterase inhibitors, fluoride, narcotics, carbon monoxide, cyanide, methanol, ethanol, arsenic, and mercury. A substantial part of the book deals with the pathological aspects of poisoning including the detection of cytogenetic effects.

Obviously, in a book that deals with everything from bee and snake venoms to drowning, with pneumoconioses and electrical and chemical burns adding to the toxicological (*sic*) picture, there is something in this book for almost everyone.

However, I found the treatment of those papers in which I am best able to judge very superficial. In the 129 references quoted in chapters on the isolation and separation of toxic substances, thin-layer chromatography, atomic absorption, and polarography, only 24 were after 1966 and none later than 1968. Toxicological literature is expanding at such a rate that it must be clear that these proceedings do not represent a major contribution to the literature. The contribution on mass spectrometry is of interest only and makes no mention of GC-MS that is now so widely used. In the diagnosis of drowning the conclusion is reached that no single reliable chemical or physical test is yet available for diagnosis.

The chapter on modifications in toxicity from the interaction of drugs and chemicals occupies three pages and eight references and deals mainly with ethanol-barbiturates and anti-diabetics with sulphonamide and dicoumarol. This may reflect the time available to the participants—clearly such a subject is of book size proportions and cannot be done in a few pages. Similarly Hays' three pages on the predictive value of human toxicity from animal data with the summary that 'unless the current approach to toxicology changes significantly, the predictive value of human toxicity from animal data will become even more obscure' will surely raise many hackles if not the blood pressure of financial directors of pharmaceutical firms!

This book thus becomes a gentle introduction to topics that interest toxicologists.

It is very well produced but at £12·60 it is expensive for what it contains.

A. S. CURRY

Practical Hints on Infra-red Spectrometry from a Forensic Analyst By M. J. de Faubert Maunder. (Pp. 239; illustrated. £5·20.) London: Adam Hilger Ltd. 1971.

The title of this book might lead the reader to expect a full coverage of all practical aspects of infra-red spectroscopy, particularly when the wide range of items submitted to a forensic laboratory is remembered. However, this is not the case. The author has chosen to restrict this field to the spectroscopy of drugs and within this compass to consider only the techniques for handling solid samples and the storage and retrieval of data from collections of pharmaceutical spectra. Thus a whole range of topics of interest to the forensic chemist, such as ways of obtaining the spectra of intractable materials such as paint fragments, insoluble polymers, oils, petrols, and fibres, have been ignored.

However, within the limits set by the foregoing, this book is one to be recommended almost unreservedly. The whole range of treatment of solids is discussed clearly and thoroughly. The merits and weaknesses of the mull and salt-disc methods are explored lucidly, and any chance of misinterpretation of the spectrum through an error of technique is well brought out. There is an excellent set of spectra to illustrate these points.

Attention is also devoted to the recovery of samples for infra-red measurement from analytical gas and thin-layer chromatography. The treatment is timely, since this combination of the high powers of separation of chromatography with the identification facility of infra-red is still too little used. The only minor omission in this section is a mention of the elegant method of G. W. Goodman[1] for transference of material from thin-layer plate to potassium bromide.

The book is well written, the style is lucid, and errors are remarkably few.

R. L. WILLIAMS

[1]G. N. Goodman, 'Quantitative Paper and Thin Layer Chromatography, p. 91, ed. by E. J. Shellard, Academic Press, London, 1968.

Clinical Chemistry and Automation: A Study in Laboratory Proficiency By R. Robinson (pp. viii + 188: illustrated. £3·20.) London: Charles Griffin. 1971.

This book is in many respects a contemporary history of the art (hopefully a science) of clinical chemistry. From analytical error as the base, he examines the impact of work simplification and mechanization, the potential of computers in the laboratory, quality control of analyses, the interpretation of results and the role of biochemical screening. With the ardour of an Old Testament prophet, he gently chides us, castigates us, shows us the road to improvement, peers into the future—and lays down the law. Colleagues, past, present, and future, are his flock—or so the introduction on the jacket implies. Sir Edward Wayne, in the foreword, expresses another view, commending the book to the clinician. Herein is the dilemma—for whom *is* the book intended? Dr Robinson does not say. The title is perhaps unfortunate for it will deter the clinician, and Sir Edward is right. Some parts the clinician may omit without loss, whereas others need expansion for the clinical chemist—the section on choice of a laboratory computer, for example, is very superficial. Nevertheless, the clear message of this beautifully produced book is one not to be ignored by either group.

P. D. GRIFFITHS

G-6-PD Deficiency By Dan F. Keller. (Pp. 67; illustrated. £5·00.) London: Butterworth Group. 1971.

This is one of a series of monographs issued by the Chemical Rubber Company of America. It is devoted to a general survey of G6PD deficiency. To anyone interested in this field it supplies a wide cover of the subject in a clear and readable style. The biochemical background to this disorder can easily be followed although the basic chemical nature of the enzyme deficiency is not so clearly described. All aspects of the syndrome are covered in ample detail with the exception of the favism problem which is only mentioned very briefly. There is a methods section at the end of the book in which a wide variety of relevant investigations are described and referenced, but unfortunately detailed recipes for individual tests are not given, and those interested will have to refer to the original papers for further information. The book is accompanied by a very detailed reference section but this appears to omit the excellent WHO monograph on G6PD. All told this is a very useful book, but its cost, at £5, is very high.

T. PRANKERD

Some Implications of Steroid Hormones in Cancer Edited by D. C. Williams, and M. H. Briggs. (Pp. x + 138; illustrated.

£2·60.) London: William Heinemann Medical Books. 1971.

This is an account of a workshop meeting organized by the Marie Curie Memorial Foundation in May 1970 at the University of Surrey.

Four papers are concerned with steroids and human breast cancer. They include a clinical appraisal of empirical steroid therapy, studies of *in vivo* and *in vitro* uptake of oestrogens by tumours, and steroid metabolism in breast cancer patients.

Are oestrogens carcinogenic? A useful review of this controversial field concludes that in man the evidence is still inconclusive. The role of steroids in cancers other than breast also gets a welcome airing, and, all in all, this well produced volume succeeds in its stated aim of spanning the boundary between clinical and scientific disciplines.

C. B. CAMERON

Renal Infection and Renal Scarring Proceedings of an International Symposium on Pyelonephritis, Vesico-Ureteric Reflux and Renal Papillary Necrosis held at Royal Melbourne Hospital, March 1970. Edited by P. Kincaid-Smith and K. F. Fairley. (Pp. 439; illustrated. $A24.74.) Melbourne, Australia: Mercedes Publishing Services; edition sponsored by Beecham Research Laboratories. 1971.

This is an account of a good meeting attended by many people of merit in the field. The topics included bacteriuria and pyuria, the site of infection, treatment, chronic pyelonephritis, vesico-ureteric reflux, and renal papillary necrosis. One of the biggest single advances in this subject has been the simple method described by Fairley to identify the site of the infection. It is therefore a pleasure to read about his use of his technique. Fairley and his group also point out a very interesting anomaly in that they find in common with most workers that intermittent bacteriuria with or without clinical evidence of infection is almost never associated with deterioration of renal function but that sterile pyuria associated with continuing evidence of renal infection is associated with a relatively rapid onset of renal failure. Gower describes some interesting observations on plasma antibactericidal activity in patients with upper urinary infection. And Asscher develops his fascinating observation that the mechanism for impaired growth and renal scarring in pyelonephritis of the growing rat are not the same. The section on treatment is not so interesting, except that once more it emerges that follow up of patients with urinary infections is far more important than the particular antibiotic that is used. The high rate of side effects with ampicillin is again mentioned. And Kunin gives a masterly summary of his work on the urinary recovery of nitrofurantoin in relation to glomerular filtration rate. The section on vesico-ureteric reflux is particularly interesting because of the presence of Shannon, Rolleston, and Utley from New Zealand. Their demonstration that severe reflux can cause destruction of the renal parenchyma in the absence of infection is a very nice piece of work.

The final section on papillary necrosis is particularly relevant to a meeting in Australia where the widespread compulsive consumption of analgesic tablets results in 8% of all necropsies showing evidence of papillary necrosis. There are some very interesting papers about the pathology, clinical, and radiological aspects of the disease. Unfortunately the idiosyncratic views of Kincaid-Smith and Prescott that the necrosis is due to the ingestion of aspirin is once again given an airing, despite the fact that in man the evidence is all to the contrary. Kincaid-Smith's faith in aspirin derives from experiments in rats which demonstrate that their renal papilla, unlike man's, appear to be very sensitive to aspirin ingestion, whereas Prescott's belief has been sustained by his original finding that aspirin ingestion in women increases the urinary excretion of renal tubule cells. In this symposium, however, he also gives an interesting account of the metabolism and central nervous system effects of phenacetin.

This is a book which anyone interested in the kidney should have available.

H. E. DE WARDENER

Muir's Textbook of Pathology, Ninth Edition Revised by D. F. Cappell and J. R. Anderson. (Pp. xiii + 976; illustrated. £10·00.) London: Edward Arnold. 1971.

What a task it is to write a modern 'textbook'—or to revise an obsolescent one! If the book is intended primarily for undergraduates—as this one is—it must be kept to 'reasonable' size and cost. But if it is to include a proper consideration of recent advances, something must be abbreviated or discarded to make way for them. One can imagine spirited discussions between those responsible for the revision. Surely we can cut down on syphilis? But can we, for is not the intrepid treponeme asserting itself anew and would it not be terrible to allow a generation of doctors to arise who knew nothing of its ravages? These and similar conundrums must have been posed repeatedly over such matters as rheumatism, bacterial diseases, and rickets. Conditions such as these, which were common in the days of earlier editions of Muir, must have been considered candidates for abbreviation to make space for 'fashionable' fields like immunology, revised classification of such things as bone tumours and lymphomas, and for clinico-pathological correlations.

D. F. Cappell and J. R. Anderson, who have successively followed Sir Robert Muir in the Chair of Pathology at the Western Infirmary in Glagow, deserve our warmest congratulations in having negotiated these difficult decisions so successfully. The new volume is a mere 16% heavier than its predecessor—but alas the price is doubled.

The first quarter of the book, dealing with general pathology, has been extensively re-written and now includes a 44-page section on immunity and immunopathology that is a masterpiece of compression. There is also an excellent new chapter on healing and repair.

The sections which follow, on special or systemic pathology, adhere, for the most part, to traditional lines. Bone pathology and skin pathology may perhaps be picked out as beautifully presented and succinct accounts of these special fields, but, while acknowledging this, one wonders if the undergraduate needs such detailed information. In other chapters, particularly perhaps in dealing with the heart, a rather more functional approach and more attention to clinico-pathological correlations would have been welcome. It may be that the minimal emphasis on these aspects reflects the fact that Scottish universities examine in pathology at an earlier stage of training than some others.

In the preface Professor Cappell and Professor Anderson list a considerable number of their Glasgow colleagues who have been responsible for the revision of individual chapters and one wonders if the future will see Muir transformed, as so many other textbooks have been, into a multiple-author production.

The publishers have done an excellent job in producing a well laid out volume with innumerable clearly reproduced first